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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,418	02/05/2002	Joel R. Goergen	3981-35	9574

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EXAMINER	
VO, TIM T	

ART UNIT	PAPER NUMBER
2112	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/068,418	GOERGEN, JOEL R.	
	Examiner	Art Unit	
	Tim T. Vo	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *8-20* is/are allowed.

6)☒ Claim(s) *1 and 2* is/are rejected.

7)☒ Claim(s) *3-7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Part III DETAILED ACTION

Notice to Applicant(s)

This application has been examined. Claims 1-20 are pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2 are rejected under 35 U.S.C. § **103(a)** as being unpatentable over Francis et al. patent number 6,580,720 in view of Zheng et al. patent number 6,804,255 referred hereinafter "Francis and Zheng".

As for claim 1, Francis teaches a modular router comprising a single electrical back plane rated to distribute at least 5000 Watts of power from a power supply to modules connected to the back plane (see figure 15A, Hub Rack 2 and column 27 lines 1-27, wherein Hub Rack 2 is interpreted as a single back plane receiving power from AC power 214 (column 24 lines 43-44), the Hub Rack distributed output power to plurality of PI racks 1 that is connecting to the Hub rack 2 as discloses in figure 15A. Further each PI rack 1 consumed at least 1250 Watts (column 22 lines 20-24). Further, Figure 15A discloses 8 PI rack 1 is electrically connecting to the Hub Rack 2 via the Electrical line and therefore, 8 times 1250 Watts is greater than 5000 Watts). The back plane further comprising multiple high speed serial differential signaling trace pairs for

carrying packet data signaling between modules connected to the back plane (see figures 15A, Fiber optic cables are connecting to the Hub rack 2 for data transferring). Francis does not expressly teach the fiber optic cables capable transferring at least 500 Gigabits/second. However, it is known that the Wide bandwidth: Optical fiber has been proven to have the widest bandwidth compared to any other media known, including wireless, copper wire, sonar, and even free-space-optics. Tera Hertz (10 to the 12th power) bit rate as Zheng mentioned in column 2 lines 28-39). It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Zheng into the teachings of Francis because Zheng increases transmission performance by providing a faster transmission rate in terabit per second.

As for claim 2, Langley teaches the back plane is also rated to simultaneously distribute at least 5000 Watts of power (see figure 15A, Hub Rack 2 and column 27 lines 1-27, wherein Hub Rack 2 is interpreted as a single back plane receiving power from AC power 214 (column 24 lines 43-44), the Hub Rack distributed output power to plurality of PI racks 1 that is connecting to the Hub rack 2 as discloses in figure 15A. Further each PI rack 1 consumed at least 1250 Watts (column 22 lines 20-24). Further, Figure 15A discloses 8 PI rack 1 is electrically connecting to the Hub Rack 2 via the Electrical line and therefore, 8 times 1250 Watts is greater than 5000 Watts).

Allowable Subject Matter

2. Claims 8-20 are allowable over the prior of records.

3. Claims 3-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments filed 04/14/2005 have been fully considered but they are not persuasive.

5. In response to the applicant arguments that Francis does not teach Hub Rack 2 is a single electrical backplane. Applicant acknowledges that the Hub Rack 2 is a rack and separate equipments such as PI racks can be connected to the Hub Rack 2 by cables (see applicant remarks page 7 on first paragraph). Figure 2 discloses plurality of PI racks are connecting to the Hub Rack 2 by fiber Optic and electrical (see figure 15A, Key). Hub Rack 2 is a single Rack for connecting to the plurality of PI racks via electrical connection in solid lines as shown in figures 15A-B. This teaching is equivalent to what is claimed which is a single electrical backplane.

6. In response to the applicant arguments that Francis does not teach wherein the Hub Rack 2 distributes power to the PI racks. Francis teaches power distribution to the PI racks via AC power 215, DC power 15 as shown in Figure 25 and column 25 lines 16-50. In this citation, Francis teaches the hub controller cage 23 includes an enclosure 231 for connecting to other PI racks via assembly 31. Further, column 25 lines 23-24, Francis clearly teach, "Power to each of the units and communications between units is provided via a Multi-Layer Backplane 235. Each unit slides into the Hub controller cage 23...". Figures 24A-B, discloses power supply 214 is distributing power to the hub

controller cage 23 and wherein the hub controller cage includes enclosure 231 for connecting to other PI racks via assembly 31.

7. In response to the applicant arguments that the electrical connections shown between the Hub Rack and PI racks in figure 15A are not power connections. Francis teaches the solid lines connecting from the Hub rack2 to the PI racks 1 are clearly electrical connection as explained in the Key section. Further, column 25 lines 16-50, Francis teaches the Hub rack 2 distributing power to each PI racks via power supply 214 as shown in figures 24A-B.

8. In response to the applicant arguments that Francis does not teach high speed serial differential signaling trace pairs. Francis teaches in general, when a user requests a connection from one device to another device, it will be appreciated that are multiple possible paths through which that connection can be established (see column 27 lines 39-67). Further, Francis teaches selecting path based on latency transmission, wherein the latency is based on the bandwidth, speed and data transfer capacity of the path for communicating with another device. Francis teaches serial signals, Extended cables, TTL level signal, PECL signal, parallel signal, fiber Optic signal as described throughout find equivalent to what is claimed.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim T. Vo whose telephone number is 703-308-5862. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7/6/2005

Tim T. Vo
Primary Examiner
Art Unit 2112